Amendments to the Specification:

Please replace the second full paragraph of page 2 with the following amended paragraph:

Accordingly, there is a need for an alcohol breath test device having an improved alcohol measurement module. The module should be made from a single body of rigid material, preferably plastic. Passages required for flowing breath and sample portions of breath should be formed by molding or milling of the body to eliminate manufacturing and assembly cost. The body should support the fuel cell and sensors required to conduct the breath test yet should be sufficiently small to form part of a handheld module easily held by a prospective operator in order to conduct a breath test. The module with the improved block should be resistant to tampering by the prospective operator. There is also a need for an alcohol detection device where the test is performed without creating a pressure pulse which signals to the prospective operator that the test is being taken. There is also a need for a compact alcohol detection device with components mounted in a compact body.

Please replace the paragraph bridging pages 3 and 4 with the following amended paragraph:

In order to conduct a breath test the prospective operator is first required to exhale sufficient breath, at least 1½ liters, to assure exhalation of alveolar breath into the sensor block. A pressure sensor then measures the pressure in an inlet passage in the block. Based on this pressure the computer calculates a valve open interval and then opens a valve leading from the inlet passage to a fuel cell for the interval to flow a small volume of alveolar breath into the fuel cell. The fuel cell generates a

voltage output responsive to the volume of ethyl alcohol in the breath sample flowed into the cell. The peak output voltage is proportional to the amount of alcohol consumed by the cell and to the BrAC of the prospective operator taking the breath test. The computer system then calculates the BrAC and deactivates the interlock if the BrAC is below a specified limit.

Please replace the first full paragraph of page 4 with the following amended paragraph:

Opening of the valve to flow breath into the fuel cell does not alter the pressure in the inlet passage. The valve is open for a short period of time, typically 0.250 seconds or less, during which the pressure in the passage is not varied, despite opening of the passage to the fuel cell. Maintaining the pressure in the passage during the time the valve is open equal to the pressure in the passage before the valve is opened permits accurate determination of the valve open interval based on the pressure in the passage before the valve is opened and does not create a pressure pulse signaling the prospective operator that the test is being taken. The sensor block operates without the necessity of a vacuum pump for drawing breath into a fuel cell.

Please replace the paragraph bridging pages 5 and 6 with the following amended paragraph:

Breath alcohol detection device 10 includes a hand held alcohol measurement module 12 including a sensor block 14, components on the block and a cover 16 surrounding the block. As illustrated in Figure 2, device 10 includes a computer system 18 connected to components on block 14 and an ignition interlock 20 for actuating the ignition of a motor vehicle if the breath alcohol content of

a prospective operator taking a breath test is less than a specified limit. The interlock defeats the ignition and prevents starting the vehicle if the BrAC equals or exceeds the limit.

Please replace the first full paragraph of page 6 with the following amended paragraph:

Block 14 is preferably machined or molded from a single piece plastic body 22, but may be made of metal or other material if desired. Block 14 includes a breath inlet passage 24 extending from inlet port 26 to outlet port 28 leading to the inlet of two-position solenoid controlled valve 30 mounted in block recess 60. Rectangular collar 32 surrounds inlet port 26 and extends outwardly from block front face 34 through a corresponding rectangular opening formed in cover front wall 36. Vent passage 38 extends from the inner end of inlet passage 24 to enlarged vent recess 40 formed in block bottom face 42. Branch or pressure sensor passage 44 extends from the inner end of passage 24 to pressure sensor 46 mounted in recess 48 formed in block side face 50.

Replace the second full paragraph of page 7 with the following amended paragraph:

Cover 16 overlies vent recess 40. A plurality of vent passages 72 in the cover overlie the recess to permit venting of breath flowed into the recess to atmosphere. In the event openings 72 are closed or obstructed, breath flowed into recess 40 is vented from the recess through open side slot 58 leading to recess 60 and open side slot 74 leading from the recess to block side face 76 without effecting a breath test.

Replace the third full paragraph of page 7 with the following amended paragraph:

Valve 30 includes solenoid 78 which is actuated by computer system 18. When the solenoid is actuated the spool of the valve is shifted against spring 66 to a first flow position to connect port 28 to outlet passage 80 shown in Figures 4, 5 and 7. Passage 80 extends into block 14 from recess 60 and intersects upwardly extending passage 82. When the solenoid is deactivated, spring 66 shifts the spool to a second flow position connecting port 28 to outlet passage 68. Passage 82 opens through a cylindrical ring 84 located in the top face 86 of block 14.

Please replace the first full paragraph of page 8 with the following amended paragraph:

The valve 30, sensor 46 and fuel cell 88 are all located in recesses on the sides or faces of block 14 and do not protrude out from the block. These components are substantially at or below the surface of the block. Recessing of components into the block minimizes the physical size of module 12 and facilitates inserting the module into the cover, removing the module from the cover and holding of module 12.

Please replace the paragraph bridging pages 8 and 9 with the following amended paragraph:

Fuel cell 88 may be the type manufactured by Guth Laboratories, Inc. of Harrisburg, Pennsylvania. The fuel cell includes a chemical material which oxidizes ethyl alcohol contained in breath air flowed into the fuel cell and generates an output voltage having a peak value directly proportional to the volume

of alcohol consumed. The sample of breath air flowed into the cell to generate a voltage output proportional to breath alcohol content, which may be very small. Samples of 1.2 ml or less are typical. The output of cell 88 is linear during the useful life of the cell in module 12. Cell 88 includes a pair of output leads 108 which are connected to computer system 18.

Please replace the first full paragraph at page 10 with the following amended paragraph:

Computer system 18 includes analog-to-digital converters to convert analog temperature signals from sensor 52 to digital signals, to convert analog signals from pressure sensor 46 to digital signals and to convert voltage signals from fuel cell 88 to digital signals.

Please replace the paragraph bridging pages 10 and 11 with the following amended paragraph:

Fuel cell calibration is performed by determining the peak output voltage of the particular cell 88 in response to imparting a known volume of breath with a known concentration of alcohol into the cell. The known amount of alcohol is generated using a breath test simulator, a device including a water-alcohol solution in which the alcohol concentration is known and, as a result, the concentration of alcohol in vapor over the solution in equilibrium with the solution at a given temperature is known.